

Angélica Maria Estrada Pacheco

Permanent Resident of Canada
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Summary

- Microbiologist with 6 years of experience, 3.5 years in wound healing research studies and 2.5 years in the superresolution microscopy field.
- Background includes participation in ground-breaking research in the areas of metabolic memory, cell biology, oxidative stress balance in the cell, the effect of mechanical forces on the T cell activation (actin cytoskeleton) and generation of nanorulers for PFS calibration in 3D Single Molecule Localization Microscopy.
- Highly trained running bioassays and working with lab animals (rat, mouse, rabbit) with observance of biosafety and Guidelines and Directions on the Use and Care of Laboratory Animals in Research.
- Great team player, with excellent oral and written communication skills in English and Spanish.

Techniques, Software & Instrumentation

- DNA, RNA extraction
- Luciferase Assay
- Protoplast Isolation
- Cloning
- PCR
- Biosafety and biosecurity
- ELISA
- Superresolution Microscopy, including sample preparation
- DNA origami
- Microbiology techniques (plating, media preparation, isolation)
- Cell culture
- Office, Adobe, MicroManager, SMAP, Cadnano, Fiji, Cellprofler.
- Statistical software (SPSS, GraphPad Prism)
- Lab management

Relevant Experience

Research assistant: Jan. 2020-June 2022

EMBL-Heidelberg, Germany, Ries group (superresolution microscopy)

- Studied the potential of porous substrates to modify subcellular structures and boost T cell activation with regard to actin network modification.
- Analyzed stiffness-dependent T cell responses using state-of-the-art superresolution microscopy techniques (STORM).
- Synthesis, self assembly and labelling of DNA origami constructs for PSF calibration in 3D SMLM.
- Lab management and in charge of cell culture operations for the lab.

Researcher Jan. 2015-Jul. 2018

Center for Genetic Engineering and Biotechnology, Havana, Cuba.

- Performed wet-lab and molecular biology scientific research, using methods including enzyme-linked immunosorbent assay (ELISA), agarose gel electrophoresis and polymerase chain reaction (PCR).

- Evaluated the effect of glucose levels on wound healing using Fibroblasts primary cell lines as a biological model to study of hyperglycemia and oxidative stress as a consequence of Diabetes Mellitus Type II.
- Analyzed the generalized and localized effects of Heberprot-P on individuals suffering from Diabetes Mellitus Type II.

Student Assistant

Sept. 2009- Jul. 2014

University of Havana, Cuba

- Gave seminars, supervised and verified the development of undergraduate students in the laboratory, working as part of a multidisciplinary group of scientists and professors.

Subjects:

1. Isolation and conservation of Microorganisms (2012-2013)
2. Mycology (2012-2013)
3. Virology for Biologists (2012-2013)
4. Environmental microbial contamination (2013-2014)
5. Genetics of microorganisms (2013-2014)
6. Clinical Virology (2013-2014)

Education

Molecular Biology Training Course (CellNetworks)

2018

Center for Organismal Studies (COS), Rausch Lab, Heidelberg University, Germany.

B. Sc. in Microbiology

2014

Department of Microbiology and Virology, University of Havana, Cuba

Affiliations & Hobbies

- Photography, biking, hiking

References

Yanelis Acebo-Guerrero, Ph.D. Inside Sales Representative, Integrated DNA Technology, Canada. Contact information: yaceboguerro@idtdna.com Phone: +1 (514) 231 1524

Assistant Prof. Michel Almaguer. Department of Microbiology. Biology Faculty. University of Havana. Contact: michelalm@fbio.uh.cu

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